

REMARKS

Claims 1 to 27 are currently pending in this re-issue application. None of the claims have been allowed. Six (6) Claims have been amended. A marked-up version of these Claims is provided beginning at page 14 of this paper.

In Claims 19 and 22 to 25, applicants have amended the format of the sequence identification numbers. In particular, the Examiner urged the removal of the colon (:) after the number. Applicants have complied. In addition, applicants have amended the claims so that all of the sequence identification numbers are in the same format. Applicants respectfully submit that full support is found in the original Claims – Claims 19, 22, 23, 24 and 25 respectively. Applicants respectfully submit that no new matter has been added.

In Claim 22, in addition to the amendment noted above, applicants have removed the dependency from Claim 16. Applicants respectfully submit that full support is found in the original Claim 22. Applicants respectfully submit that no new matter has been added.

In Claim 24, in addition to the amendment noted above, applicants have inserted “An” as suggested by the Examiner. Applicants respectfully submit that full support is found in the original Claim 24. Applicants respectfully submit that no new matter has been added.

----- In Claim 27, in addition to the amendment noted above, applicants have replaced “COX-7” with “COS-7”. Support for this amendment is found in Example 5, beginning at the bottom of column 14, approximately line 49 exemplifying transfection into COS-7 cells. Applicants respectfully submit that no new matter has been added.

At the top of page 2 of the Action, the Examiner reminds applicants of their continuing obligation to timely apprise the Office of any prior or concurrent proceedings in which US 5,543,297 is or was involved.

At this time, the undersigned attorney wishes to summarize Patent Interference No. 104,289 that was decided in favor of Cromlish (Merck Frosst) US 5,543,297 and Re-issue application 09/731,632 and against Young (U. Rochester) application 08/487,752. For convenience, applicants enclose a copy of Paper 200, filed February 3, 2003, entitled Judgment Pursuant to 37 CFR 1.662.

A Notice Declaring Interference between Cromlish US 5,543,297 and Young USSN 08/487,752. was mailed by the Patent Office to the parties on November 5, 1999. Young

was initially designated as the Senior Party. Following Decisions on the Motions, styled Memorandum Opinion and Order, papers 171 and 174, mailed March 29, 2002 and September 13, 2002, respectively, the Board, in paper 188, mailed November 21, 2004, ordered that judgment on priority as to Count 1 (the only Count in the Interference) be award against Young and further ordered that the Interference be redeclared with Cromlish as the Senior party. On January 31, 2003, Young abandoned the Contest (paper 199) and on February 3, 2003 the Board issued the enclosed Judgment in favor of Cromlish. The Examiner is invited to contact the undersigned attorney, should he wish to have additional explanation or Interference papers.

At the bottom of page 2, of the Action, the Examiner objects to the specification, stating that applicants did not provide the specification in a double column format as required for a re-issue application. Further, the Examiner states that applicants need to amend the specification by providing the new address of the ATCC, wherever it appears in the specification. In response, Applicants hereby enclose a copy of the specification as issued (including claims) in two column format. As requested by the Examiner, the address of the ATCC has been amended to read as follows:

American Type Culture Collection, P.O. Box 1549, Manassas, VA 20108

This amendment is found at column 2, approximately lines 33-34. Applicants respectfully submit that this amendment merely up-dates the address of the ATCC, and does not add new matter.

At page 3 of the Action, the Examiner notes that applicants neither requested the transfer of the electronic form of the sequence information from the parent application to the instant re-issue application, nor have we filed an electronic form of the information with the STIC Library. Applicants hereby request the transfer of the electronic form of the sequence from the parent patent to the instant re-issue application.

At the bottom of page 3 of the Action, the Examiner urges applicants to provide a form 1449 listing all of the references cited on the face of the patent. At this time, applicants respectfully submit an Information statement which includes all of the references listed on the face of US 5,543,297 and others as well.

At the top of page 4 of the Action, the Examiner states that the Applicants did not submit the original patent. Applicants, respectfully request that this issue be held in abeyance,

until allowable subject matter is identified.

At the middle of page 4 of the Action, the Examiner states that the Oath/declaration is defective. The Examiner states as follows:

1) The error specified is not corrected. Applicants have indicated that claims 20 and 21 are in error because they do not have antecedence. However, said error has not been addressed and remains in the claims.

2) Applicants fail to provide the residential address/ mailing address of inventors 3 through 6.

Claims 1-27 are rejected as being based upon a defective reissue Declaration under 35 U.S.C. 251 as set forth above. See 37 CFR 1.175.

In response, applicants submit a replacement Declaration. The replacement Declaration retains the statement concerning Claim 20 and 21. The errors have now been addressed by cancellation of the two Claims. The replacement Declaration provides the residences of all of the inventors. Finally, as mentioned at the beginning of this Amendment, the replacement Declaration, authorizes the undersigned attorney and other in-house attorneys to prosecute this application. The Declaration also includes a customer number so that in the future, the papers can be accessed by Merck through the PAIR system.

At the top of page 5 of the Office Action, the Examiner objects to Claims 17-19 and 22-25 are objected to. The Examiner states:

Claims 17-19, 22-25 present SEQ ID NO with a colon mark (:) after the specific number which is unnecessary. Examiner urges applicants to remove the colon mark. Appropriate correction is required.

As indicated above, applicants have amended the claim as required.

At the middle of page 5 of the Action, the Examiner rejects Claim 18 as being directed to non-statutory subject matter. In particular, the Examiner states that the claim is drawn to a human cyclooxygenase, which reads on a product of nature. Per the Examiner's suggestion, applicants have amended claim 18 to recite "an isolated cyclooxygenase".

At the bottom of page 5 of the office Action, the Examiner rejects claims 20-21 under 35 USC 112, second paragraph, for failing to point out and distinctly claim the subject

matter the applicants regard as their invention. The Examiner states that Claims 20 and 21 recite "A system", which he believes does not have sufficient antecedent basis. Applicants respectfully submit that cancellation of Claims 20 and 21 renders this issue moot.

The Examiner also rejects claim 17 under 35 USC 112, second paragraph. The Examiner states as follows:

Claim 17 drawn to a human COX-2 cDNA improperly depends from claim 15 which is drawn to an assay which neither makes nor uses the cDNA claimed in claim 17. Claim is also rejected because it lacks antecedence to claim 15. Correction is required. However, Examiner warns applicant that if claim 17 is amended to depend from claim 16 as it should, then newly added claim 22 becomes a duplicate of claim 17 and such duplicate claims are not allowed.

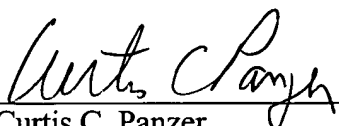
Claims 16-25 are rejected under 35 USC 112, first paragraph. The Examiner states, in part:

Claims 16-25 are rejected under this section of 35 USC 112 because the claims are directed to a genus of polypeptides derived from humans that have not been disclosed in the specification.

~~-----Applicants have canceled Claim 16 to 18 and 20 and 21. Applicants respectfully~~
submit that their amendments render the rejection moot.

Having addressed all of the outstanding objections and rejections, applicants respectfully submit that the application is now in condition for allowance and passage thereto is earnestly requested. The Examiner is invited to contact the attorney at the telephone number provided below, if such would advance the prosecution of this case.

Respectfully submitted,

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Marked up copies of the amended claims is as follows, wherein an underline denotes language added and brackets denote language deleted:

Claim 19. (Once Amended) A transformed host that expresses cyclooxygenase-2 as shown in FIG. 1 [(SEQ. ID. NO. 10:)] (SEQ. ID. NO: 10) comprising:

- (a) a mammalian or eukaryotic expression vector; and
- (b) a sequence encoding human cyclooxygenase-2 comprising bases 97 to 1909 as shown in FIG. 2 [(SEQ ID NO:11)] (SEQ. ID. NO: 11) or encodes protein of FIG. 1 [(SEQ ID NO:10)] (SEQ. ID. NO: 10).

Claim 22. (Once amended) Human cyclooxygenase-2 cDNA [according to claim 16] comprising the coding region which is bases 97 to 1909 of Fig. 2 [(SEQ. ID. NO. 11:)] (SEQ. ID. NO: 11).

Claim 23. (Once amended) Recombinant human cyclooxygenase-2 which is shown in Fig. 1 [(SEQ. ID. NO. 10:)] (SEQ. ID. NO: 10).

Claim 24. (Previously submitted) An isolated [Isolated] human cyclooxygenase-2 which is shown in Fig. 1 [(SEQ. ID. NO. 10:)] (SEQ. ID. NO: 10).

Claim 25. (Once amended) Purified human cyclooxygenase-2 which is shown in Fig. 1 [(SEQ. ID. NO. 10:)] (SEQ. ID. NO: 10).

Claim 27. (Once amended) The transformed host according to claim 19 wherein the cyclooxygenase-2 is expressed in [COX-7] COS-7 cells.